

II. Listing of Claims

Please amend the claims as follows:

CLAIMS

1. (Currently Amended) A circuit arrangement for DC-isolated transmission of an analog input variable ~~by means of a signal transformation part,~~ having a voltage input and a voltage output, and in particular ~~also~~ for voltage matching between ~~the~~ a voltage input and ~~the~~ a voltage output of the circuit arrangement, ~~characterized in that the signal transformation part is designed as the~~ circuit arrangement comprising an inductive signal transformation part ~~(6)~~ and the circuit arrangement is provided with a charging and discharging arrangement having a switching element ~~(S1)~~ in such a way that, wherein as a result of the switching element ~~(S1)~~ being actuated, a charging or discharging current (i_1 , i_2) that is proportional to an input voltage (U_1) at the voltage input, and flows through the signal transformation part ~~(6)~~ ~~occurs~~ and an output voltage (U_3) is established at the voltage output.

2. (Currently Amended) The circuit arrangement as claimed in claim 1, ~~characterized by~~ further comprising two circuit parts ~~(2, 3)~~ that are DC-isolated from the signal transformation part ~~(6)~~.

3. (Currently) The circuit arrangement as claimed in claim 1 ~~or 2,~~ ~~characterized in~~ further comprising that the charging and discharging arrangement has an inductive energy store formed from the signal transformation part ~~(6)~~ with a

first and second winding (W1, W2) ~~in particular with~~ and a core made of magnetizable ~~material~~ material, the switching element (S1) being connected up between the voltage output and the second winding (W2) of the signal transformation part (6) in such a way that the switching element (S1) forms a sampling circuit part enabling a DC-isolated sampling of a voltage (Uc1).

4. (Currently Amended) The circuit arrangement as claimed in claim 3, ~~characterized in~~ further comprising that the switching element (S1) is connected to a winding end of the signal transformation part (6) by one of its switching ends (7) and to ground or zero volts by its other switching end (8).

5. (Currently Amended) The circuit arrangement as claimed in ~~one of the preceding claims, characterized in that~~ claim 1 further comprising a differential amplifier (V1) is connected up by its differential inputs to output-side winding ends (9, 10) of the signal transformation part (6), the output of the differential amplifier (V1) forming the voltage output with the output voltage (U3).

6. (Currently Amended) The circuit arrangement as claimed in ~~one of the preceding claims, characterized in~~ claim 1 further comprising that the charging and discharging arrangement has a smoothing capacitor (C1).

7. (Currently Amended) The circuit arrangement as claimed in claim 6, ~~characterized in~~ further comprising that the smoothing capacitor (C1) is electrically connected up between an a second electrical resistor (R2) connected in parallel with it and a winding (W1) on a winding side of the voltage input of the signal

transformation part (6), a rectifying element (D1) ~~in particular a diode~~ being connected between the smoothing capacitor (C1) and the winding (W1) in such a way that it assumes a turned-off state in the case of a charging operation, and a ~~charging~~ first resistor (R1) being connected upstream of the smoothing capacitor (C1).

8. (Currently Amended) The circuit arrangement as claimed in claim 6 ~~or 7, characterized in~~ further comprising that the switching element (S1) is connected up to an output-side winding side of the voltage output in such a way that the smoothing capacitor (C1) is charged and discharged by the switching element (S1) being switched on and off, respectively.

9. (Currently Amended) The circuit arrangement as claimed in ~~one of~~ claims 6 to 8, characterized in claim 6 further comprising that a sampling frequency achieved by repeated opening and closing of the switching element (S1) is dimensioned in such a way that, through discharging of the smoothing capacitor (C1), a voltage increase occurring at the smoothing capacitor (C1) is possible by means of ~~the~~ a second resistor (R2).

10. (Currently Amended) The circuit arrangement as claimed in ~~one of the preceding claims, characterized by~~ claim 1 further comprising a matching circuit part for matching ~~an~~ the output voltage to ~~an~~ the input voltage, which matching circuit part is connected between the voltage input (4) and a first winding (W1) of the inductive signal transformation part (6).

11. (Currently Amended) The circuit arrangement as claimed in claim 10, ~~characterized in~~ further comprising that the matching circuit part has a series circuit comprising first and second electrical resistors (~~R1, R2~~) that are connected to form a voltage divider.

12. (Currently Amended) The circuit arrangement as claimed in claim 11, ~~characterized in that~~ wherein the voltage divider has a division ratio of approximately 1:2 and the inductive signal transformation part has a turns ratio (\ddot{u}) of approximately $\ddot{u} = 1$.

13. (Currently Amended) The circuit arrangement as claimed in ~~one of~~ claims 10 to 12, characterized by a design on the claim 10 further comprising that the circuit arrangement is adapted for the input side for signal to be in a voltage range of approximately 0 to 10 volts and on the output side for a voltage range of approximately 0 to 5 volts, a linear signal transmission being effected at least in ~~these~~ the ranges.

14. (Currently Amended) The circuit arrangement as claimed in ~~one of the preceding claims,~~ characterized in claim 1 further comprising that the inductive signal transformation part (~~6~~) has a primary winding and a secondary winding, which are wound around a closed magnetic core.

15. (Currently Amended) The circuit arrangement as claimed in ~~one of the preceding claims,~~ characterized in claim 1 further comprising that the switching element (~~S1~~) is a semiconductor switching element—~~preferably a transistor~~.

16. (Currently Amended) A ~~control unit having a~~ circuit arrangement as claimed in ~~one of the preceding claims~~ claim 1 used as a control unit.

17. (Currently Amended) A ~~regulator having a~~ circuit arrangement as claimed in ~~one of the preceding claims~~ claim 1 used as a regulator.

18. (Currently Amended) The ~~regulator~~ circuit arrangement as claimed in claim 17, ~~characterized by a design wherein the regulator acts~~ as a rotational speed regulator of an electric motor ~~in particular of a commutatorless DC motor.~~

19. (Currently Amended) A method for the DC-isolated transmission of a voltage signal from an input side to an output side, characterized by an inductive sampling of a charged voltage signal (U_{c1}) from the DC-isolated output side.

20. (Currently Amended) The method as claimed in claim 19, ~~characterized by~~ further comprising a switch-on operation of a switching element ($S1$), in the case of which a primary current ($i2$) through an output-side winding ($W2$) of an inductive signal transformation part rises in ramped fashion, and also a switch-off operation of the switching element ($S1$), in the case of which the primary current ($i2$) falls to zero and then a secondary current flows in an input-side winding ($W1$) in a manner falling in ramped fashion.